

NOVEL ANTIBODY CONJUGATES REACTIVE WITH HUMAN CARCINOMAS

09/290798

ABSTRACT OF THE DISCLOSURE

5 The present invention relates to novel antibodies, antibody
fragments and antibody conjugates and single-chain
immunotoxins reactive with human carcinoma cells. More
particularly, the antibodies, conjugates and single-chain
immunotoxins of the invention include: a murine monoclonal
10 antibody, BR96; a human/murine chimeric antibody, ChiBR96; a
F(ab')₂ fragment of BR96; ChiBR96-PE, ChiBR96-LysPE40, ChiBR96
F(ab')₂-LysPE40 and ChiBR96 Fab'-LysPE40 conjugates and
recombinant BR96 sFv-PE40 immunotoxin. These molecules are
reactive with a cell membrane antigen on the surface of human
15 carcinomas. The BR96 antibody and its functional equivalents,
displays a high degree of selectivity for carcinoma cells and
possess the ability to mediate antibody-dependent cellular
cytotoxicity and complement-dependent cytotoxicity activity.
In addition, the antibodies of the invention internalize
20 within the carcinoma cells to which they bind and are
therefore particularly useful for therapeutic applications,
for example, as the antibody component of antibody-drug or
antibody-toxin conjugates. The antibodies also have a unique
feature in that they are cytotoxic when used in the unmodified
25 form, at specified concentrations.